

**REMARKS**

The Final Office Action mailed October 26, 2006, has been received and reviewed. Claims 36 through 74 are currently pending in the application. Claims 36 through 47, 52 through 58, 61, 62, 64, 65, and 67 through 72 stand rejected. Claims 48 through 51, 59, 60, 63, and 66 have been objected to as being dependent upon rejected base claims, but the indication of allowable subject matter in such claims is noted with appreciation. Claims 73 and 74 are allowed. Applicants propose to amend claims 69 and 70, and respectfully request reconsideration of the application as proposed to be amended herein and in view of the arguments set forth hereinbelow.

**35 U.S.C. § 112 Claim Rejections**

Claims 69 and 70 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

More specifically, the Examiner states that the limitation “the at least one roller” lacks sufficient antecedent basis. Applicants propose to amend claims 69 and 70 such that the identified limitation reads “each roller of the plurality of rollers.”

Applicants respectfully request reconsideration of claims 69 and 70 and withdrawal of the rejection under 35 U.S.C. § 112, second paragraph.

**35 U.S.C. § 102 Anticipation Rejections**

**Anticipation Rejection Based on U.S. Patent No. 5,543,199 to Fell**

Claims 71 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Fell (U.S. Patent No. 5,543,199). Applicants respectfully traverse this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claim 71 is directed to an apparatus for forming elongated composite structural members. The apparatus comprises: a base; at least one mandrel mounted on the base, the at least one mandrel exhibiting a substantially elongated geometry; *a carriage assembly movably coupled to the base; at least one roller exhibiting a geometry configured to at least partially complementarily engage the least one mandrel as the at least one roller rolls there along, the at least one roller being coupled with the carriage assembly, wherein the carriage assembly is movably coupled to the base such that it displaces the at least one roller in a longitudinal direction with respect to the substantially elongated geometry of the at least one mandrel; and at least one force-applying mechanism configured to apply a desired force to the at least one mandrel through the at least one roller.*

The Examiner cites Fell as disclosing an apparatus for forming elongated composite structural members comprising: “a base (figure 1); at least one mandrel mounted on the base, the at least one mandrel exhibiting a substantially elongated geometry (items 1 and 4 – figures 1 and 2A); a carriage assembly coupled to the base (column 13, lines 44-45); at least one roller exhibiting a geometry configured to at least partially complementarily engage the at least one mandrel as the at least one roller rolls there along, the at least one roller being coupled with the carriage assembly, wherein the carriage assembly is movably coupled to the base such that it displaces the at least one roller in a longitudinal direction with respect to the substantially elongated geometry of the at least one mandrel (column 12, lines 24-27; column 13, lines 1-10); and at least one force applying mechanism configured to apply a desired force to the at least one mandrel through the at least one roller (column 13, lines 14-15; column 16, lines 45-50).” (Office Action, page 4). However, Applicants respectfully submit that Fell fails to describe all of the limitations of the presently claimed invention.

Fell describes an apparatus for forming a honeycomb structure which includes a plurality of retractable, hexagonal formers (1 and 4) disposed adjacent to one another so as to define the lower portion of a corrugated sheet having a node-antinode geometry. (Col. 8, lines 39-64). In one embodiment, a “toothed cylinder or wheel (31) supplies pressure to the node-antinode contact area (32) as it rolls across the honeycomb top surface.” (Col. 12, lines 25-27). The rollers are mounted in a carriage (45) which, “upon reaching the end of the bed of formers, is

raised and traversed back to the start position after severing the end of the web.” (Col. 13, lines 44-47).

However, Fell fails to describe the relationship of the carriage and the base. More specifically, Fell does not describe, either expressly or inherently, a carriage assembly *movably coupled to the base*.

Moreover, Applicants submit that Fell fails to describe the carriage assembly being movably coupled to the base such that it displaces the at least one roller *in a longitudinal direction with respect to the substantially elongated geometry of the at least one mandrel*. Rather, even assuming *arguendo* that Fell disclosed a carriage assembly movably coupled to the base, the toothed roller is displaced *laterally* relative to the elongated geometries of the formers/rods (1 and 4), in contrast to the limitations of claim 1.

Applicants, therefore, respectfully submit that claim 71 is clearly allowable over Fell and request reconsideration and allowance thereof.

Anticipation Rejection Based on U.S. Patent No. 6,432,236 to Leemon et al.

Claims 36, 37, 39 through 47, 52 through 58, 67, 68, 71 and 72 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Leemon et al. (U.S. Patent No. 6,432,236). Applicants respectfully traverse this rejection, as hereinafter set forth.

Claims 36, 37, 39 through 47, 52 through 58, 67 and 68

Independent claim 36 is directed to an apparatus for forming elongated composite structural members. The apparatus comprises: a base; at least one mandrel mounted on the base, the at least one mandrel exhibiting a substantially elongated geometry; a carriage assembly movably coupled to the base; at least one roller exhibiting a geometry having a substantially continuously convex engagement surface as it rotates about an axis, the engagement surface being configured to at least partially complementarily engage the least one mandrel as the at least one roller rolls there along, the at least one roller being coupled with the carriage assembly; and at least one force-applying mechanism configured to apply a desired force to the at least one mandrel through the at least one roller.

The Examiner cites Leemon as disclosing “a base (figure 2); at least one mandrel mounted on the base, the at least one mandrel exhibiting a substantially elongated geometry (item 43 – figure 1); a carriage assembly movably coupled to the base (figure 1); at least one roller exhibiting a geometry having a substantially continuously convex arrangement surface as it rotates about an axis, the engagement surface being configured to at least partially complementarily engage the at least one mandrel as the at least one roller rolls there along, the at least one roller being coupled with the carriage assembly (item 60 – figure 2; column 6, lines 10-18); wherein the at least one roller and carriage assembly are mutually configured for the [at] least one roller to be removed from the carriage assembly and replaced by another roller exhibiting a geometry configured to substantially completely complementarily engage the at least one mandrel (figure 2).” (Office Action, page 5). Applicants respectfully disagree with the Examiner’s characterization of Leemon.

Leemon describes a method of fabricating a thermosetting matrix, fiber reinforced composite structure using a stack of fiber reinforced material plies. (Abstract, col. 4, lines 47-50). The method includes disposing a plurality of plies over a mandrel (43) and dragging an ultrasonic horn (30) over the topmost ply to induce heat into the plies and transfer energy thereto. (Col. 5, lines 10-33). A shoe or roller (60) may be used to assist in debulking or consolidating the plies. (Col. 6, lines 11-19). The greater part of Leemon’s description is dedicated to the orientation of the ultrasonic horn relative to the plies of material.

Leemon does not describe, however, at least one mandrel mounted on the base, the at least one mandrel *exhibiting a substantially elongated geometry*. Indeed, the only details disclosed regarding the mandrel (43) appear to be a single cross-sectional view shown in FIG. 1. The particular geometry of the mandrel (43) does not appear to be disclosed by Leemon.

Additionally, Leemon fails to describe, either expressly or inherently, a carriage assembly *movably coupled to the base*. While the Examiner points to FIG. 1 as disclosing such subject matter, it is not clear what the Examiner considers to be the base, the carriage assembly, or how FIG. 1 shows them being movably coupled to one another. Moreover, FIG. 1 does not even show a roller, so it further unknown how Leemon describes at least one roller coupled with the carriage assembly. Additionally, while FIG. 2 depicts a roller (60), it shows the roller as an independent

component and does not describe the roller as being coupled to any particular component (not even with the horn (30)).

Thus, while Leemon may generally disclose a roller that moves relative to a mandrel, it clearly fails to describe, either expressly or inherently, a roller coupled to a carriage assembly, wherein the carriage assembly is movably coupled to the base as set forth in claim 36 of the presently claimed invention.

Applicants, therefore, submit that claim 36 is clearly allowable over Leemon. Applicants further submit that claims 37, 39 through 47, 52 through 58, 67 and 68 are also allowable over Leemon as being dependent from an allowable base claim as well as for the additional patentable subject matter introduced thereby.

With respect to claim 37, while the Examiner cites Leemon, pointing generally to FIG. 2, as disclosing that the roller and carriage assembly are mutually configured for the roller to be removed from the carriage assembly and replaced by another roller exhibiting a geometry configured to substantially completely complementarily engage the at least one mandrel, Applicants find no such description in Leemon.

With respect to claim 40, while the Examiner cites Leemon, pointing generally to FIG. 1, as disclosing an automated material-dispensing device that is configured to dispense the plurality of plies of material *including a first ply exhibiting a first width and at least a second ply exhibiting a second width different than the first width*, nothing in FIG. 1 implies such a limitation, nor do Applicants find such a description in Leemon.

With respect to claims 45 through 47, Applicants submit that Leemon does not provide any particular details regarding a force applying mechanism (including, *i.e.*, a weight operably coupled to the at least one roller, a pneumatic system or a hydraulic system). Rather, the only details Leemon appears to provide regarding a force applying mechanism is as follows:

The pressure or force required for debulking and consolidation (or to prevent deconsolidation prior to cooling) may also be applied by a separate member, such as a shoe or roller 60, FIG. 2, which is disposed proximate to horn 30. If horn 30 is moving across the surface 42, then shoe 60 extends the period of time when the consolidation

force is applied over the situation when the consolidation force is applied only by the horn itself. (Col. 6, liens 11-18).

With respect to claim 53, Applicants again note that Leemon provides no details regarding a base, a carriage assembly or components that may be associated therewith. As such, Applicants submit that Leemon fails to describe a heating device coupled with the carriage assembly, the carriage assembly including the limitations as set forth in claim 36.

With respect to claim 68, Applicants submit that Leemon fails to describe at least one roller configured *to move laterally* with respect to a length of the substantially elongated geometry of the at least one mandrel *while maintaining engagement with the at least one mandrel as the at least one roller is displaced in a direction along the length of the substantially elongated geometry of the at least one mandrel*. While the Examiner cites col. 8, lines 25-30, Applicants fail to find such limitations described in the cited passage.

Applicants, therefore, respectfully request reconsideration and allowance of claims 36, 37, 39 through 47, 52 through 58, 67 and 68.

#### Claim 71

Independent claim 71 is directed to an apparatus for forming elongated composite structural members. The apparatus comprises: a base; *at least one mandrel mounted on the base, the at least one mandrel exhibiting a substantially elongated geometry*; a carriage assembly movably coupled to the base; at least one roller exhibiting a geometry configured to at least partially complementarily engage the least one mandrel *as the at least one roller rolls there along, the at least one roller being coupled with the carriage assembly, wherein the carriage assembly is movably coupled to the base such that it displaces the at least one roller in a longitudinal direction with respect to the substantially elongated geometry of the at least one mandrel*; and at least one force-applying mechanism configured to apply a desired force to the at least one mandrel through the at least one roller.

The Examiner cites Leemon as disclosing all of the limitations of claim 71 with primary reference to FIG. 2 of Leemon. Applicants respectfully traverse this rejection.

The teachings of Leemon are set forth hereinabove with respect to the discussing of claim 36. As noted in the discussion above, Leemon fails to describe, either expressly or inherently, at least one mandrel mounted on the base, the at least one mandrel *exhibiting a substantially elongated geometry*. Indeed, the only details disclosed regarding the mandrel (43) appear to be a single cross-sectional view shown in FIG. 1. The particular geometry of the mandrel (43) does not appear to be disclosed by Leemon.

Additionally, Leemon fails to describe, either expressly or inherently, a carriage assembly *movably coupled to the base*. While the Examiner points to FIG. 2 as disclosing such subject matter, it is not clear what the Examiner considers to be the base, the carriage assembly, or how FIG. 2 shows them being movably coupled to one another. Additionally, FIG. 2 does not depict the roller (60) as being coupled to any particular component (not even with the horn (30)).

Thus, while Leemon may generally disclose a roller that moves relative to a mandrel, it clearly fails to describe, either expressly or inherently, a roller coupled to a carriage assembly, wherein the carriage assembly is movably coupled to the base as set forth in claim 71 of the presently claimed invention.

Having failed to describe the limitations discussed above, Applicants submit that Leemon clearly fails to describe the at least one roller being coupled with the carriage assembly, wherein the carriage assembly is movably coupled to the base *such that it displaces the at least one roller in a longitudinal direction with respect to the substantially elongated geometry of the at least one mandrel*.

Applicants, therefore, respectfully request reconsideration and allowance of claim 71.

#### Claim 72

Independent claim 72 is directed to an apparatus for forming elongated composite structural members. The apparatus comprises: a base; *at least one mandrel mounted on the base, the at least one mandrel exhibiting a substantially elongated geometry*; a carriage assembly *movably coupled to the base*; at least one roller exhibiting a geometry configured to at least partially complementarily engage the at least one mandrel as the at least one roller rolls there

along, *the at least one roller being coupled with the carriage assembly, wherein the at least one roller is configured to move laterally with respect to a length of the substantially elongated geometry of the at least one mandrel while maintaining engagement with the at least one mandrel as the at least one roller is displaced in a direction along the length of the substantially elongated geometry of the at least one mandrel*; and at least one force-applying mechanism configured to apply a desired force to the at least one mandrel through the at least one roller.

The Examiner cites Leemon as disclosing all of the limitations of claim 71 with primary reference to FIG. 2 of Leemon. Applicants respectfully traverse this rejection.

The teachings of Leemon are set forth hereinabove with respect to the discussing of claim 36. As noted in the discussion above, Leemon fails to describe, either expressly or inherently, at least one mandrel mounted on the base, the at least one mandrel *exhibiting a substantially elongated geometry*. Indeed, the only details disclosed regarding the mandrel (43) appear to be a single cross-sectional view shown in FIG. 1. The particular geometry of the mandrel (43) does not appear to be disclosed by Leemon.

Additionally, Leemon fails to describe, either expressly or inherently, a carriage assembly *movably coupled to the base*. While the Examiner points to FIG. 2 as disclosing such subject matter, it is not clear what the Examiner considers to be the base, the carriage assembly, or how FIG. 2 shows them being movably coupled to one another. Additionally, FIG. 2 does not depict the roller (60) as being coupled to any particular component (not even with the horn (30)).

Thus, while Leemon may generally disclose a roller that moves relative to a mandrel, it clearly fails to describe, either expressly or inherently, a roller coupled to a carriage assembly, wherein the carriage assembly is movably coupled to the base as set forth in claim 71 of the presently claimed invention.

Additionally, Applicants submit that Leemon fails to describe at least one roller configured *to move laterally* with respect to a length of the substantially elongated geometry of the at least one mandrel *while maintaining engagement with the at least one mandrel as the at least one roller is displaced in a direction along the length of the substantially elongated geometry of the at least one mandrel*. While the Examiner cites col. 6, lines 10-20 and col. 8, lines 25-30, Applicants fail to find such limitations described in the cited passages.



Applicants, therefore, respectfully request reconsideration and allowance of claim 72.

Anticipation Rejection Based on U.S. Patent No. 6,071,458 to Mossi

Claims 36 through 38, 41 through 45, 55, 56, 61, 62, 64, 65, 67, and 69 through 71 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Mossi (U.S. Patent No. 6,071,458). Applicants respectfully traverse this rejection, as hereinafter set forth.

36 through 38, 41 through 45, 55, 56, 61, 62, 64, 65 and 67

The subject matter of claim 36 is set forth hereinabove. The examiner cites Mossi as disclosing: “a base (figure 2); at least one mandrel mounted on the base, the at least one mandrel exhibiting a substantially elongated geometry (item 5 – figure 2); a carriage assembly movably coupled to the base (figure 4); at least one roller exhibiting a geometry configured to at least complementarily engage the at least one mandrel as the at least one roller rolls there along (item 11 – figure 2), the at least one roller coupled with the carriage assembly (figures 2 and 4); and at least one force-applying mechanism configured to apply a desired force to the at least one mandrel through the at least one roller (column 3, lines 1-5); wherein the at least one roller and carriage assembly are mutually configured for the at least one roller to be removed from the carriage assembly and replaced by another roller exhibiting a geometry configured to substantially completely complementarily engage the at least one mandrel (column 2, lines 55-60)’ wherein the at least one roller comprises a plurality of rollers coupled with the carriage assembly (figure 2). (Office Action, page 9). Applicants respectfully traverse the rejection of claim 36.

Mossi describes a system for shaping pre-cast concrete panels. The system includes a casting bed (1) that supports steel side rails (3) and steel cross members (4) to define rectangular casting compartments (23). (Col. 2, lines 40-45). A form liner (5) is disposed at the bottom of the compartments and exhibits alternating ridges and grooves. The casting boxes are filled with wet concrete. A stainless steel roller (9) having a plurality of steel discs (10) mounted thereto is placed on top of the upper surfaces of the side rails. Handles (16 and 17) are coupled to respective ends of the roller and a hydraulic machine (12) causes the roller to rotate relative to the handles. “As shown in FIGS. 3-5, the hydraulic machine 12 drives roller 9 in a forward

direction. The roller surface has traction in the concrete and pulls the roller 9 through the wet concrete 8 cutting grooves 20. During this first pass, as shown in FIG. 4, workers hold the arms 16, 17 and slightly retard the forward progress of the roller 9, so that the roller 9 spins in the wet concrete 8.” (Col. 3, lines 20-28). In short, Mossi describes a system that uses a power screed to help form the geometry of the upper surface of a concrete panel.

However, Applicants submit that Mossi fails to describe all of the limitations of the present invention. For example, Mossi does not describe, either expressly or inherently, a carriage assembly *movably coupled to the base*. The Examiner does not cite a specific component as being a “carriage assembly” (rather the Examiner merely points to FIG. 4). Nor does the Examiner point to a specific component as being a base (rather, the Examiner merely refers to FIG. 2). Applicants fail to see any description by Mossi of a carriage assembly movably coupled to a base. For example, assuming arguendo that the Examiner is referring to the handles/arms (16, 17) as the carriage assembly, such arms are not movably coupled to a base as required by claim 36.

Additionally, Applicants submit that Mossi fails to describe at least one force-applying mechanism configured to apply a desired force to the at least one mandrel through the at least one roller. While the Examiner appears to consider the hydraulic machine (12) as a force applying mechanism, the hydraulic machine “drives a pump that forces hydraulic fluid through a tube 14 into housing 15 where the hydraulic fluid flow is converted to a rotations force, delivering rotational force to roller shaft 10.” (Col. 3, lines 1-5). The Examiner does not indicate how the rotation motor is considered to be force-applying mechanism configured to apply a desired force to the at least one mandrel through the at least one roller.

Applicants, therefore, submit that claim 36 is clearly allowable over Mossi. Applicants further submit that claims 37, 38, 41 through 45, 55, 56, 61, 62, 64, 65 and 67 are also allowable as being dependent from an allowable base claim as well as for the additional patentable subject matter introduced thereby.

With respect to claim 37, Applicants fail to find any description by Mossi, either express or inherent, of the at least one roller and carriage assembly being mutually configured for the at least one roller to be removed from the carriage assembly and replaced by another roller

exhibiting a geometry configured to substantially completely complementarily engage the at least one mandrel.

With respect to claim 38, 61, 62, 64 and 65 while the Examiner points to the discs (11) as being a plurality of rollers, Applicants submit that the roller (9) of Mossi is a single roller having a varied surface profile. Indeed Mossi states that such discs merely “impart a shaped forming surface to the roller 9.” (Col. 2, lines 61-62). As such, Applicants submit that Mossi fails to describe a plurality of rollers (claim 38) which are configured as set forth in any of claims 61, 62, 64 or 65.

With respect to claims 55 and 56, the Examiner points to the hydraulic mechanism which is “suited to drive the roller 9 at variable speeds such as, for example, 50 to 500 rpm, in both forward and reverse directions.” (Col. 3, lines 6-8). However, it is unclear to Applicant how such a description can be considered a “controller operably coupled with the apparatus and configured to control movement of the carriage assembly relative to the base about a plurality of axes” (claim 56) or a controller that is configured to control operation of the force applying mechanism (claim 57), which force applying mechanism applicants have already asserted is not described by Mossi.

Applicants, therefore, respectfully request reconsideration and allowance of claims 37, 36, 38, 41 through 45, 55, 56, 61, 62, 64, 65 and 67.

#### Claim 69

Claim 69 is directed to an apparatus for forming elongated composite structural members. The apparatus comprises: a base; at least one mandrel mounted on the base, the at least one mandrel exhibiting a substantially elongated geometry; *a carriage assembly movably coupled to the base; a plurality of rollers*, each roller of the plurality exhibiting a geometry configured to at least partially complementarily engage the least one mandrel as each roller of the plurality of rollers rolls there along, each roller of the plurality being coupled with the carriage assembly, wherein the plurality of rollers includes a first roller configured to engage a first portion of the mandrel and at least a second roller configured to engage a second portion of the mandrel, the first portion of the mandrel being substantially different than the second portion of the mandrel;

and at least one force-applying mechanism configured to apply a desired force to the at least one mandrel through the plurality of rollers.

The Examiner cites Mossi as disclosing all of the limitations of claim 69. Applicants respectfully disagree. The teachings of Mossi are set forth hereinabove. As previously discussed, Mossi fails to describe, either expressly or inherently, a carriage assembly *movably coupled to the base*. The Examiner does not cite a specific component as being a “carriage assembly” (rather the Examiner merely points to FIG. 4). Nor does the Examiner point to a specific component as being a base (rather, the Examiner merely refers to FIG. 2). Applicants fail to see any description by Mossi of a carriage assembly movably coupled to a base. For example, assuming *arguendo* that the Examiner is referring to the handles/arms (16, 17) as the carriage assembly, such arms are not movably coupled to a base as required by claim 69.

Additionally, Applicants submit that Mossi fails to describe at least one force-applying mechanism configured to apply a desired force to the at least one mandrel through the plurality of rollers. While the Examiner appears to consider the hydraulic machine (12) as a force applying mechanism, the hydraulic machine “drives a pump that forces hydraulic fluid through a tube 14 into housing 15 where the hydraulic fluid flow is converted to a rotations force, delivering rotational force to roller shaft 10.” (Col. 3, lines 1-5). The Examiner does not indicate how the rotation motor is considered to be force-applying mechanism configured to apply a desired force to the at least one mandrel through a plurality of rollers.

Furthermore, Applicants submit that Mossi fails to disclose a plurality of rollers. While the Examiner points to the discs (11) as being a plurality of rollers, Applicants submit that the roller (9) of Mossi is a single roller having a varied surface profile. Indeed Mossi states that the cited discs simply “impart a shaped forming surface to the roller 9.” (Col. 2, lines 61-62).

Applicants, therefore, respectfully submit that claim 69 is clearly allowable over Mossi and respectfully request the same.

#### Claim 70

Claim 70 is directed to an apparatus for forming elongated composite structural members. The apparatus comprises: a base; at least one mandrel mounted on the base, the at least one mandrel exhibiting a substantially elongated geometry and a cross-sectional geometry taken

substantially transverse to a length thereof; *a carriage assembly movably coupled to the base; a plurality of rollers*, each roller of the plurality exhibiting a geometry configured to at least partially complementarily engage the least one mandrel as each roller of the plurality of rollers rolls there along, each roller of the plurality being coupled with the carriage assembly, wherein the plurality of rollers includes a first roller configured to engage a portion of the at least one mandrel at a first location with respect to the cross-sectional geometry and at least a second roller configured to engage another portion of the at least one mandrel at a second location with respect to the cross-sectional geometry, the first location be substantially different than the second location; and *at least one force-applying mechanism configured to apply a desired force to the at least one mandrel through the plurality of rollers.*

The Examiner cites Mossi as disclosing all of the limitations of claim 70. Applicants respectfully disagree. The teachings of Mossi are set forth hereinabove. As previously discussed, Mossi fails to describe, either expressly or inherently, a carriage assembly *movably coupled to the base*. The Examiner does not cite a specific component as being a “carriage assembly” (rather the Examiner merely points to FIG. 4). Nor does the Examiner point to a specific component as being a base (rather, the Examiner merely refers to FIG. 2). Applicants fail to see any description by Mossi of a carriage assembly movably coupled to a base. For example, assuming arguendo that the Examiner is referring to the handles/arms (16, 17) as the carriage assembly, such arms are not movably coupled to a base as required by claim 69.

Additionally, Applicants submit that Mossi fails to describe at least one force-applying mechanism configured to apply a desired force to the at least one mandrel through the plurality of rollers. While the Examiner appears to consider the hydraulic machine (12) as a force applying mechanism, the hydraulic machine “drives a pump that forces hydraulic fluid through a tube 14 into housing 15 where the hydraulic fluid flow is converted to a rotations force, delivering rotational force to roller shaft 10.” (Col. 3, lines 1-5). The Examiner does not indicate how the rotation motor is considered to be force-applying mechanism configured to apply a desired force to the at least one mandrel through a plurality of rollers.

Furthermore, Applicants submit that Mossi fails to disclose a plurality of rollers. While the Examiner points to the discs (11) as being a plurality of rollers, Applicants submit that the

roller (9) of Mossi is a single roller having a varied surface profile. Indeed Mossi states that the cited discs simply “impart a shaped forming surface to the roller 9.” (Col. 2, lines 61-62).

Applicants, therefore, respectfully submit that claim 70 is clearly allowable over Mossi and respectfully request the same.

#### Claim 71

The subject matter of claim 71 is set forth hereinabove. The Examiner relies on Mossi as disclosing all of the limitations of claim 71. The teachings of Mossi are also set forth hereinabove.

As previously discussed, Mossi fails to describe, either expressly or inherently, a carriage assembly *movably coupled to the base*. The Examiner does not cite a specific component as being a “carriage assembly” (rather the Examiner merely points to FIG. 4). Nor does the Examiner point to a specific component as being a base (rather, the Examiner merely refers to FIG. 2). Applicants fail to see any description by Mossi of a carriage assembly movably coupled to a base. For example, assuming *arguendo* that the Examiner is referring to the handles/arms (16, 17) as the carriage assembly, such arms are not movably coupled to a base as required by claim 69.

Additionally, Applicants submit that Mossi fails to describe at least one force-applying mechanism configured to apply a desired force to the at least one mandrel through the plurality of rollers. While the Examiner appears to consider the hydraulic machine (12) as a force applying mechanism, the hydraulic machine “drives a pump that forces hydraulic fluid through a tube 14 into housing 15 where the hydraulic fluid flow is converted to a rotations force, delivering rotational force to roller shaft 10.” (Col. 3, lines 1-5). The Examiner does not indicate how the rotation motor is considered to be force-applying mechanism configured to apply a desired force to the at least one mandrel through a plurality of rollers.

Applicants, therefore, respectfully submit that claim 71 is clearly allowable over Mossi and respectfully request the same.

**Objections to Claims 48 through 51, 59, 60, 63 and 66/Allowable Subject Matter**

Claims 48 through 51, 59, 60, 63 and 66 stand objected to as being dependent upon rejected base claims, but are indicated to contain allowable subject matter and would be allowable if placed in appropriate independent form.

Applicants appreciate the indication of allowable subject matter. However, Applicants submit that claims 48 through 51, 59, 60, 63 and 66 depend from allowable claims and, therefore, are also in condition for allowance. Reconsideration of claims 48 through 51, 59, 60, 63 and 66 is respectfully requested.

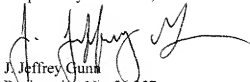
**ENTRY OF AMENDMENTS**

The proposed amendments to claims 69 and 70 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application. Further, the amendments do not raise new issues or require a further search. In addition, the amendments specifically address a 35 U.S.C. § 112, second paragraph rejection raised in the outstanding Final Office Action. Finally, if the Examiner determines that the amendments do not place the application in condition for allowance, entry is respectfully requested upon filing of a Notice of Appeal herein.

**CONCLUSION**

Claims 36 through 74 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



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